

art shows groove walls of a main groove being inclined at 80 degrees with respect to the tread.

Japan 609 teaches a pneumatic tire with a plurality of main grooves formed into a tread surface and extending in the radial direction of the tire. In particular Japan shows a protrusion in a circumferential groove. Further, the protrusion side walls and the groove walls are oriented parallel to each other as viewed in cross section.

Claim 1 is directed to a pneumatic tire provided with a plurality of main grooves extended in a tire circumferential direction on a tread surface and a main groove having a groove width narrowed during inflation among the plurality of main grooves. Claim 1 recites that both groove walls are inclined from the tread surface so as to define an acute angle between respective ones of the groove walls and the tread surface so that the groove width of the main groove becomes wider toward a groove bottom of the main groove. Further, claim 1 recites that a generally trapezoidally-shaped protrusion divides a groove space of the main groove in a tire width direction and is provided at the groove bottom with the protrusion having a pair of slanted side walls and a flat top surface disposed apart from the groove bottom and connecting the pair of slanted side walls with respective ones of the pair of slanted side walls and the both groove walls being oriented parallel to each other as viewed in cross-section.

It is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests the features of claim 1. Specifically, none of the applied art, alone or in combination, teaches or suggests both groove walls being inclined from the tread surface so as to define an acute angle between respective ones of the groove walls and the tread surface so that the groove width of the main groove becomes wider toward a groove bottom of the main groove and a generally trapezoidally-shaped protrusion dividing a groove space of the main groove in a tire width direction and provided at the groove bottom with the protrusion having a pair of slanted side walls and a flat top surface disposed apart from the groove bottom and connecting the pair of slanted side walls with respective ones of the pair of slanted side walls and the both groove walls being oriented parallel to each other as viewed in cross-section. Thus, it is respectfully submitted that one of ordinary skill in the art would not be motivated to combine the features of the applied art because such combination would not result in the claimed

invention. As a result, it is respectfully submitted that claim 1 is allowable over the applied art.

Claim 6 depends from claim 1 and includes all of the features of claim 1. Thus, it is respectfully submitted that claim 6 is allowable at least for the reason claim 1 is allowable as well as for the features it recites.

Withdrawal of the rejection is respectfully requested.

Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as unpatentable over the admitted prior art in view of Kukimoto et al. (U.S. Patent No. 5,445,201). The rejection is respectfully traversed.

Kukimoto shows a pneumatic tire with a tread having circumferential main grooves with groove walls outwardly inclined and a ribbed shaped protrusion located in the groove.

For the identical reasons discussed above, it is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests the features of claim 1. Specifically, none of the applied art, alone or in combination, teaches or suggests both groove walls being inclined from the tread surface so as to define an acute angle between respective ones of the groove walls and the tread surface so that the groove width of the main groove becomes wider toward a groove bottom of the main groove and a generally trapezoidally-shaped protrusion dividing a groove space of the main groove in a tire width direction and provided at the groove bottom with the protrusion having a pair of slanted side walls and a flat top surface disposed apart from the groove bottom and connecting the pair of slanted side walls with respective ones of the pair of slanted side walls and the both groove walls being oriented parallel to each other as viewed in cross-section. Thus, it is respectfully submitted that one of ordinary skill in the art would not be motivated to combine the features of the applied art because such combination would not result in the claimed invention. As a result, it is respectfully submitted that claim 1 is allowable over the applied art.

Claims 4 and 6 depend from claim 1 and include all of the features of claim 1. Thus, it is respectfully submitted that the dependent claims are allowable at least for the reason claim 1 is allowable as well as for the features they recite. For instance, claim 4 recites that the protrusion is divided in the tire width direction by a slit formed into the

flat top surface towards the groove bottom and extending circumferentially thereabout to form a first divided protrusion section and a second divided protrusion section in facial contact with the first divided protrusion section at the slit. For this additional reason, it is respectfully submitted that claim 4 is allowable over the applied art.

Claim 3 is directed to a pneumatic tire provided with a plurality of main grooves extended in a tire circumferential direction on a tread surface and a main groove having a groove width narrowed during inflation among the plurality of main grooves. Claim 3 recites that both groove walls are inclined from the tread surface so as to define an acute angle between respective ones of the groove walls and the tread surface so that the groove width of the main groove becomes wider toward a groove bottom of the main groove. Claim 3 also recites that a protrusion divides a groove space of the main groove in a tire width direction and is provided at the groove bottom with the protrusion having a pair of side walls. Claim 3 also recites that respective ones of the pair of side walls and the both groove walls are oriented parallel to each other as viewed in cross-section. Additionally, claim 3 recites that the protrusion is made equal to or lower than the tread surface, a height difference between the protrusion and the tread surface is set in a range from 0 to 2 mm and a ratio of the height of the protrusion to a groove depth of the main groove is set at 0.8 or higher.

It is respectfully submitted that none of the applied art, alone or in combination, teaches or suggests the features of claim 3. Specifically, none of the applied art, alone or in combination, teaches or suggests that a protrusion is made equal to or lower than a tread surface, a height difference between the protrusion and the tread surface is set in a range from 0 to 2 mm and a ratio of the height of the protrusion to a groove depth of the main groove is set at 0.8 or higher. Thus, it is respectfully submitted that one of ordinary skill in the art would not be motivated to combine the features of the applied art because such combination would not result in the claimed invention. As a result, it is respectfully submitted that claim 3 is allowable over the applied art.

Withdrawal of the rejection is respectfully requested.

Claim 4 is rejected under 35 U.S.C. 103(a) as unpatentable over the admitted prior art in view of Kukimoto and Montagne (U.S. Patent No. 3,763,911) and further in view of Japan 4-274906 and/or Constantakis et al. (U.S. Patent No. 2,708,957). The

rejection is respectfully traversed.

Claim 4 depends from claim 1 and includes all of the features of claim 1. Thus, it is respectfully submitted that claim 4 is allowable at least for the reason claim 1 is allowable as well as for the features it recites as discussed above.

Withdrawal of the rejection is respectfully requested.

Claim 5 is rejected under 35 U.S.C. 103(a) as unpatentable over the admitted prior art in view of Kukimoto and Montagne and further in view of Overman (U.S. Patent No. 2,254,622). The rejection is respectfully traversed.

Claim 5 depends from claim 1 and includes all of the features of claim 1. Thus, it is respectfully submitted that claim 5 is allowable at least for the reason claim 1 is allowable as well as for the features it recites.

Withdrawal of the rejection is respectfully requested.

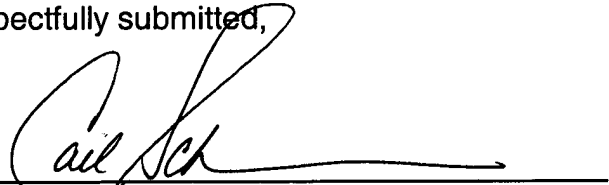
In view of the foregoing, reconsideration of the application and allowance of the pending claims are respectfully requested. Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is invited to contact Applicants' representative at the telephone number listed below.

Should additional fees be necessary in connection with the filing of this paper or if a Petition for Extension of Time is required for timely acceptance of the same, the Commissioner is hereby authorized to charge Deposit Account No. 18-0013 for any such fees and Applicant(s) hereby petition for such extension of time.

Respectfully submitted,

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Enclosure(s):      Appendix I (Marked-Up Version of Amended Claims)

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**APPENDIX I****(MARKED-UP VERSION OF AMENDED CLAIMS)**

1. (Twice Amended) A pneumatic tire provided with a plurality of main grooves extended in a tire circumferential direction on a tread surface, wherein, with regard to a main groove having a groove width narrowed during inflation among said plurality of main grooves, both groove walls are inclined from the tread surface so as to define an acute angle between respective ones of the groove walls and the tread surface so that the groove width of the main groove becomes wider toward a groove bottom of the main groove, and a generally trapezoidally-shaped protrusion dividing a groove space of the main groove in a tire width direction is provided at the groove bottom, the protrusion having a pair of slanted side walls and a flat top surface disposed apart from the groove bottom and connecting the pair of slanted side walls with respective ones of the pair of slanted side walls and the both groove walls being oriented parallel to each other as viewed in cross-section.

3. (Twice Amended) ~~The A pneumatic tire according to claim 1~~provided with a plurality of main grooves extended in a tire circumferential direction on a tread surface, wherein, with regard to a main groove having a groove width narrowed during inflation among said plurality of main grooves, both groove walls are inclined from the tread surface so as to define an acute angle between respective ones of the groove walls and the tread surface so that the groove width of the main groove becomes wider toward a groove bottom of the main groove, and a protrusion dividing a groove space of the main groove in a tire width direction is provided at the groove bottom, the protrusion having a pair of side walls and respective ones of the pair of side walls and the both groove walls being oriented parallel to each other as viewed in cross-section, wherein said protrusion is made equal to or lower than said tread surface, a height difference between said protrusion and said tread surface is set in a range from 0 to 2 mm and a ratio of the height of said protrusion to a groove depth of the main groove is set at 0.8 or higher.

4. (Amended) The pneumatic tire according to any one of claims ~~1 to 3~~ and 2, wherein said protrusion is divided in the tire width direction by a slit formed into the flat top surface towards the groove bottom and extending circumferentially thereabout to form a first divided protrusion section and a second divided protrusion section in facial contact with the first divided protrusion section at the slit.